

Central Ohio Hospital Quality Collaborative Report

All the Care, All the Time

2010



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Executive Summary

The Central Ohio Hospital Quality Collaborative is comprised of 18 local hospitals working together to improve health care quality.

Over the past seven years, hospitals participating in the Central Ohio Hospital Quality Collaborative have worked together on a shared focus of improving quality for specific medical conditions. By learning the best practices for these medical conditions and by incorporating them into routine patient care delivery, local hospitals have taken a stand to deliver all of the recommended care to all of the appropriate patients. All the care. All the time. Since they began reporting each medical condition and implementing best practices within a collaborative structure, hospitals have demonstrated a:

- **41.3% improvement** in providing all recommended care to pneumonia patients;
- **35.1% improvement** in providing recommended care to heart failure patients;
- **13% improvement** in providing all recommended care to heart attack patients;
- **9.2% improvement** in providing all recommended care to surgical patients.



Overview

Since 2003, the hospitals in central Ohio have been collaborating to improve the quality of patient care for certain medical conditions. Through the Central Ohio Hospital Quality Collaborative, coordinated by the Ohio Hospital Association, hospitals are committed to learning and sharing best practices, engaging in quality-improvement projects and standardizing processes that are proven to improve the quality of care for patients. By standardizing care based on best practices and evidence-based medicine, patient care in the greater central Ohio area is improved and lives are saved.

This report of the Central Ohio Hospital Quality Collaborative highlights four initiatives participating hospitals have undertaken collaboratively to improve the quality and safety of patient care:

- **Pneumonia**
- **Congestive heart failure**
- **Acute myocardial infarction (AMI), or heart attack**
- **Surgical Care**

These medical conditions were chosen by participating hospitals because they are among the most common medical conditions for which adults are admitted to the hospital. The data in this report reflect the practices of participating hospitals in meeting the recommended process measures for each of these conditions. Process measures determine if patients are given a needed medicine, treatment or test at the right time. The measures are identified through research on recommended care of patients by the Joint Commission, the Centers for Medicare & Medicaid Services (CMS) and the National Quality Forum (NQF). By following these evidence-based treatments, patients

are more likely to have better outcomes and show an improved quality of life.

Since the collaborative began, central Ohio hospitals have tracked their performance on these measures. This report provides a snapshot of their results.

The Central Ohio Hospital Quality Collaborative is proud of the commitment of the administrators, physicians, nurses and other dedicated staff members of the following hospitals to improving the quality of patient care in their institutions and in the central Ohio community:

- Berger Health System, Circleville
- Doctors Hospital West, Columbus
- Dublin Methodist Hospital
- Fairfield Medical Center, Lancaster
- Grady Memorial Hospital, Delaware
- Grant Medical Center, Columbus
- James Cancer Hospital and Solove Research Institute, Columbus
- Licking Memorial Hospital, Newark
- Marion General Hospital
- Memorial Hospital of Union County, Marysville
- Mount Carmel East Hospital, Columbus
- Mount Carmel New Albany Hospital
- Mount Carmel St. Ann's Hospital, Westerville
- Mount Carmel West Hospital, Columbus
- Nationwide Children's Hospital, Columbus
- The Ohio State University Medical Center, Columbus
- The Ohio State University Hospitals East, Columbus
- Riverside Methodist Hospital, Columbus



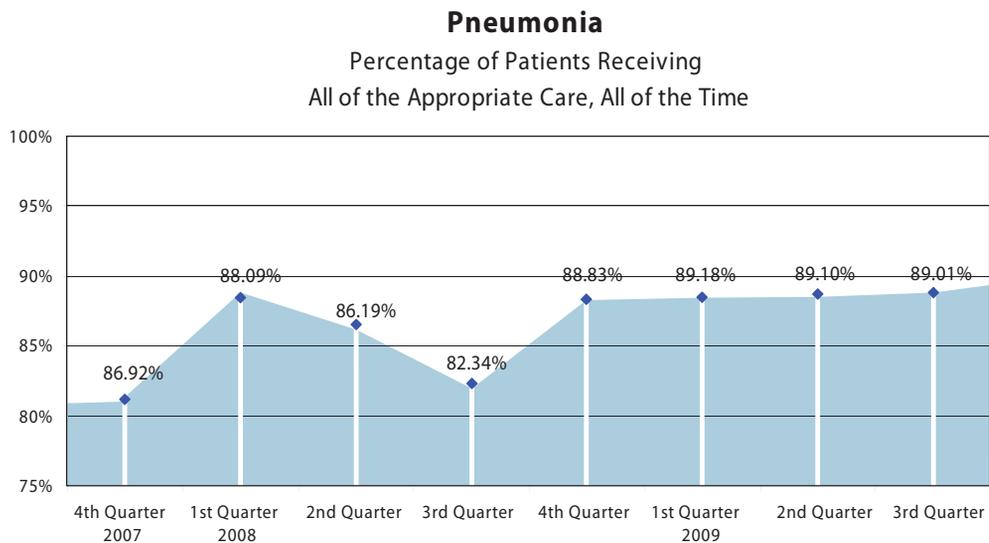
Pneumonia Care

According to the U.S. Centers for Disease Control and Prevention, nearly 60,000 Americans die from pneumonia each year. In 2007, approximately 1.4 million people were admitted to the hospital as a result of pneumonia, with an average hospital stay of 5.3 days. From October 2007 to September 2009, which is the period covered in this report, central Ohio Hospitals treated 11,271 pneumonia patients.

National quality organizations have identified the following treatments for hospitalized pneumonia patients for optimal outcomes:

- Oxygen levels in the blood evaluated within 24 hours of hospital arrival;
- Patients age 65 or older screened for pneumonia vaccine status and vaccinated prior to discharge, if appropriate;
- Patients who were transferred or admitted to the intensive care unit within 24 hours of hospital arrival undergo tests used to detect infections that are spreading through the blood stream;
- Counseling or smoking cessation programs advised to patients who smoke cigarettes;
- First dose of antibiotic administered within six hours of hospital arrival;
- Additional antibiotics administered within 24 hours after arrival, consistent with current medical guidelines;
- Patients age 50 or older hospitalized anytime from October through February screened for the flu vaccination and vaccinated prior to discharge, if appropriate.

Central Ohio hospitals have made significant improvement in providing pneumonia patients with all of the treatments listed above, which are recommended for optimal patient care. Recommended pneumonia care rates for 2006 and 2007 are:





PNEUMONIA FAST FACTS

Definition: A serious lung infection that causes difficulty breathing, fever, cough and fatigue.

Prevalence: About 60,000 Americans die each year from pneumonia.

Cause: Often a complication of a pre-existing condition/infection and triggered when a patient's defense system is weakened, most often by a simple viral respiratory tract infection or a case of influenza. Pneumonia is not a single disease. It can have over 30 different causes. There are five main causes of pneumonia: bacteria, viruses, mycoplasmas, other infectious agents, such as fungi, and various chemicals.

Symptoms: Chest pain, fever, chills, cough and shortness of breath.

Risk Factors: Certain diseases, smoking, alcohol abuse and exposure to certain chemicals or pollutants.

People at Risk: Older adults, very young children, pregnant women and people with impaired immune systems or chronic lung disease.

Prevention: Get vaccinated, wash hands, don't smoke, live a healthy lifestyle and if diagnosed with pneumonia, stay away from anyone with a compromised immune system.

Treatment: Treatment depends on the type and severity of pneumonia, but antibiotics are generally prescribed along with recommendations for rest and plenty of fluids. Other over-the-counter medications may be recommended to reduce symptoms.

Sources: American Lung Association and Mayo Foundation for Medical Education and Research.



Heart Failure Care

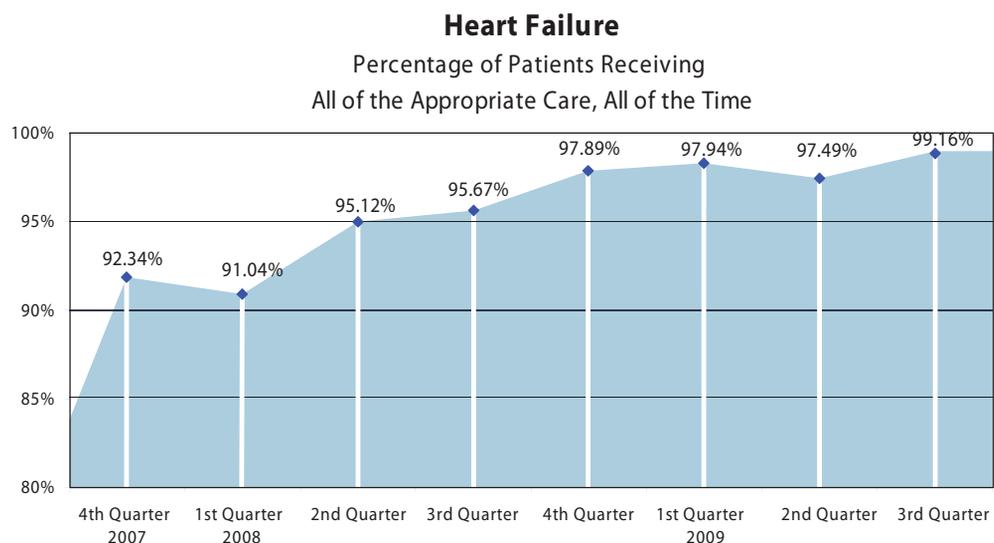
According to the National Institutes of Health, about 5.7 million people in the U.S. experience heart failure each year. It contributes to approximately 300,000 deaths each year. From October 2007 to September 2009, which is the period covered in this report, central Ohio hospitals treated 10,914 patients for heart failure.

As opposed to a heart attack where blood supply to the heart is interrupted, heart failure is a condition in which the heart can't pump enough blood throughout the body. The leading causes of heart failure are coronary artery disease, high blood pressure and diabetes.

National quality organizations have identified the following treatments for hospitalized heart failure patients for optimal outcomes:

- Written instructions or educational materials given to patients at discharge or during hospital stay addressing all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring and what to do if symptoms worsen;
- Evaluation or assessment of patient's left ventricular contraction as documented in medical records;
- Patients who have low blood flow with each heartbeat prescribed two specific medicines (angiotensin-converting enzyme inhibitor, angiotensin receptor blocker) at discharge;
- Counseling or smoking cessation programs advised to patients who smoke cigarettes.

Central Ohio hospitals have made significant improvements in providing heart failure patients with all of the treatments listed above, which are recommended for optimal patient care. Heart failure care rates for fourth quarter 2007 through third quarter 2009 are:





HEART FAILURE FAST FACTS

Definition: A weakening of the heart's pumping power. With heart failure, the body doesn't get enough oxygen and nutrients to meet its needs.

Prevalence: More than 5 million Americans are living with heart failure, and 550,000 new cases are diagnosed each year.

Causes: Coronary artery disease, heart attack, high blood pressure, faulty heart valves, damage to the heart muscle, inflammation of the heart muscle, congenital heart defects, abnormal heart rhythms and other chronic diseases.

Symptoms: Shortness of breath, persistent coughing and wheezing, build up of excess fluid in body tissues, fatigue, lack of appetite, nausea, confusion and increased heart rate.

Risk Factors: High blood pressure, coronary artery disease, heart attack, irregular heart beat, diabetes, some diabetes medications, sleep apnea, congenital heart defects, viruses, alcohol use and kidney conditions.

People at Risk: People age 65 or older are at greater risk, as well as men, those with family history of heart disease and African Americans, due to higher blood pressure.

Prevention: Reduce the chances of developing any risk factors with healthy lifestyle changes.

Treatment: The most common forms of heart failure cannot be cured, but they can be treated with lifestyle changes, medications or surgery.

Sources: American Heart Association and Mayo Foundation for Medical Education and Research



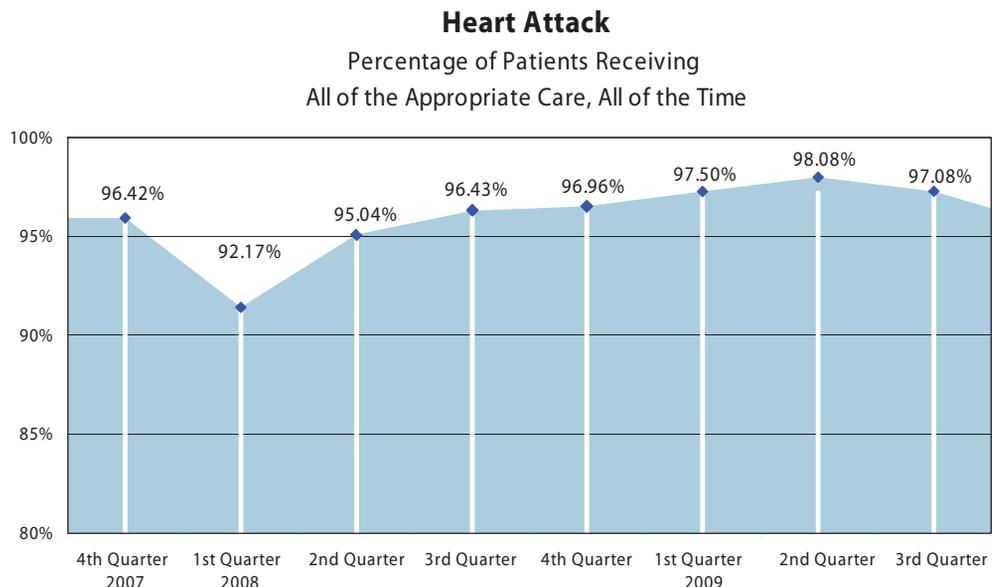
Heart Attack Care

More than 1.5 million Americans suffer a heart attack each year. From October 2007 to September 2009, which is the period covered in this report, central Ohio hospitals treated approximately 8,000 heart attack patients. Heart attack is the leading cause of death in the U.S., with approximately one-third of individuals who experience a heart attack dying.

Delays in seeking medical care play a significant role in a patient's outcome. Hospital care also plays a significant role. National quality organizations have identified the following treatments for acute myocardial infarction (AMI), or heart attack, for optimal outcomes:

- Aspirin administered upon arrival and prescribed at discharge;
- Patients who have low blood flow with each heart beat be prescribed two specific medicines (angiotensin-converting enzyme inhibitor, angiotensin receptor blocker) at discharge;
- Counseling or smoking cessation programs advised to patients who smoke cigarettes;
- Medicines for heartbeat management prescribed at both arrival and discharge from hospital;
- Within 30 minutes or less of hospital arrival, administer a procedure using drugs to break down blood clots;
- Within the first 90 minutes of hospital arrival, perform a therapeutic treatment used to reach the heart through major blood vessels without opening the chest.

Central Ohio hospitals have made significant improvements in providing heart attack patients with all of the treatments listed above, which are recommended for optimal patient care. Heart Attack care rates for fourth quarter 2007 through third quarter 2009 are:





HEART ATTACK FAST FACTS

Definition: Occurs when blood flow to part of the heart muscle is blocked.

Prevalence: Each year over a million and a half people in the U.S. have a heart attack. About half of them die.

Cause: Lack of blood flow to the heart caused by one or more blocked arteries.

Symptoms: Pressure, fullness or a squeezing pain in the center of the chest that lasts for more than a few minutes, pain extending beyond the chest to the shoulders, arms, back or even to the teeth and jaw, increasing episodes of chest pain, prolonged pain in the upper abdomen, shortness of breath, sweating, fainting, nausea and vomiting. However, women may experience different symptoms, such as a different kind of chest pain and/or abdominal pain and those with diabetes may not experience any symptoms.

Risk Factors: Tobacco smoke, high blood pressure, high blood cholesterol levels, lack of physical activity, obesity, diabetes, stress, alcohol abuse and family history of heart attack.

People at Risk: Those who live unhealthy lifestyles or have a family history of heart attack.

Prevention: The American Heart Association recommends that heart attack prevention begin by age 20. This means assessing risk factors and working to keep them low by living a healthy lifestyle.

Treatment: Therapies include the use of drugs to dissolve clots, balloon angioplasty or surgery. The sooner medical attention is obtained; the sooner blood flow can be restored to the heart muscle and decrease disability after a heart attack.

Sources: American Heart Association and Mayo Foundation for Medical Education and Research.



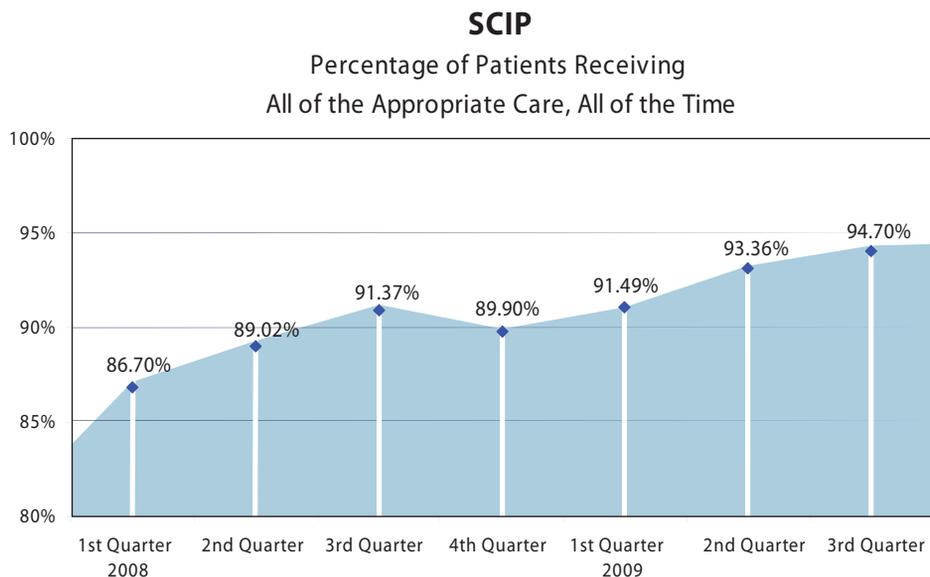
Surgical Care Improvement Project

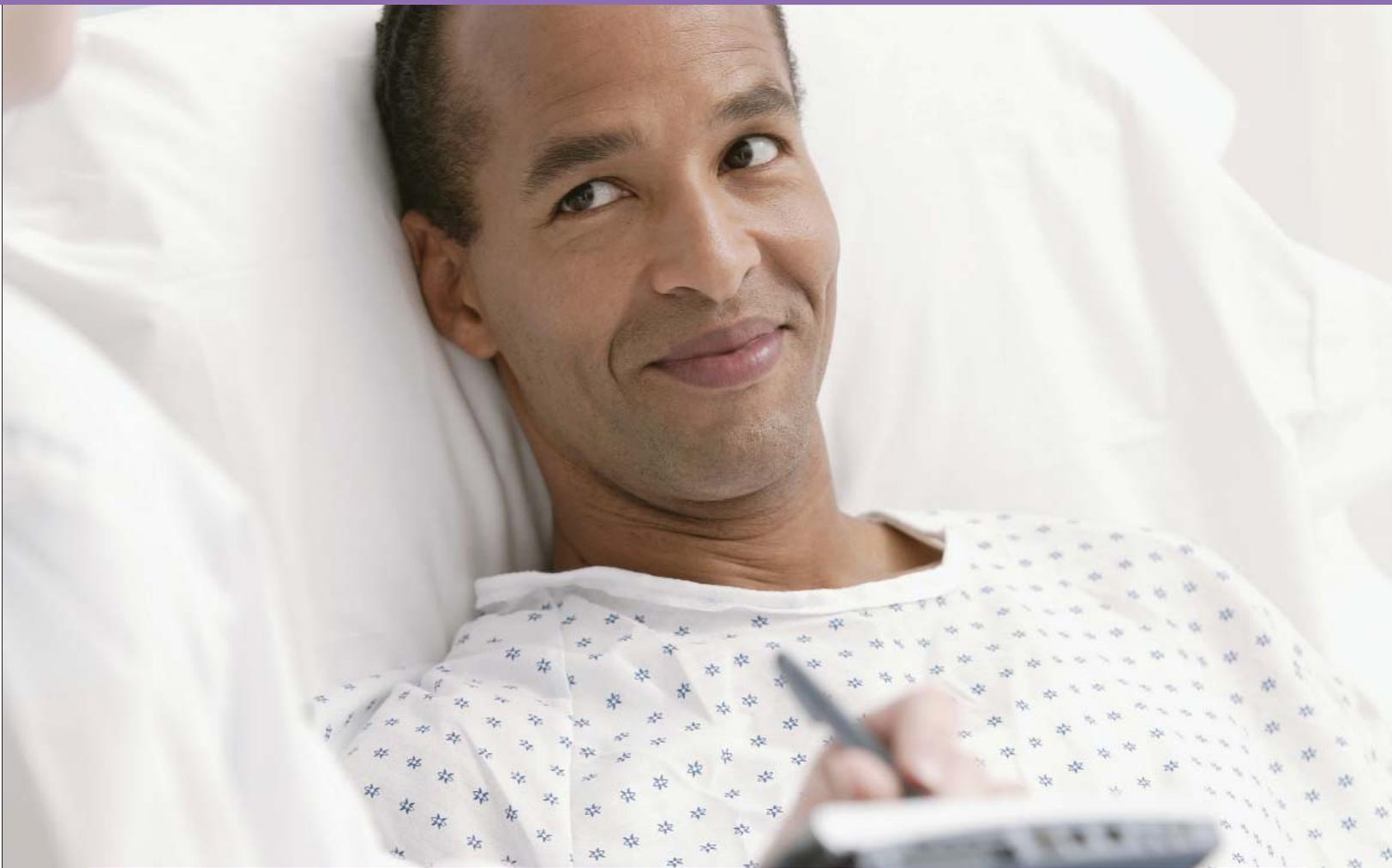
This is a nationwide quality program from the Centers for Medicare and Medicaid Services (CMS) in collaboration with the American Hospital Association (AHA), Centers for Disease Control and Prevention (CDC), Institute for Healthcare Improvement (IHI), and Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

Surgical care is complex and there are many components of each surgical case that are studied and monitored to allow for continuous improvement. The SCIP program measures many of the most common aspects of surgery and those areas where complications can frequently occur. These measures include:

- Infection-preventing antibiotics are selected, appropriate to the surgical procedure;
- Infection-preventing antibiotics are administered one hour prior to surgical incision;
- Infection-preventing antibiotics are discontinued within 24 hours after surgery end time.

Central Ohio hospitals have made significant improvements in providing surgical care patients with all of the treatments listed above, which are recommended for optimal patient care. Surgical care rates for first quarter 2008 through third quarter 2009 are:





SURGICAL CARE IMPROVEMENT FAST FACTS

Definition: Surgical Care Improvement Project is a project that is monitored and organized by many national organizations in the United States in an effort to reduce the number of surgical complications.

Cause: There are many recommended procedures to improve surgical outcomes, from the administering of antibiotics and other drugs to patients at the correct time, to the appropriate removal of hair on a surgical site. Failure to comply with the procedures may cause minor or more complicated issues in a surgical patient.

Symptoms: Failure to prescribe a medication at the correct time or the correct dose may lead to increased incidence of infections, the presence of blood clots or other complications depending on the medications prescribed and the patient in question.

Prevention: Millions of Americans have surgery every year. Every surgery has risks, but there are some that can be prevented. When doctors and nurses follow some simple steps, patients have a shorter and safer hospital stay. Central Ohio hospitals believe that a meaningful reduction in surgical complications depends on surgeons, anesthesiologists, perioperative nurses, pharmacists, infection control professionals, and hospital executives working together to intensify their commitment to making surgical care improvement a priority. Learn more about what to ask members of your surgical team before surgery.

Sources: Centers for Medicare and Medicaid Services, Premier, Inc.

Thank You.

Thank you to the medical directors of the following hospitals for their commitment and ongoing support of the Central Ohio Hospital Quality Collaborative:

Richard Brill
Nationwide Children's Hospital

Craig Cairns, MD
Licking Memorial Hospital

Dean Colwell, DO
Doctors Hospital

J. Terrance Davis, MD
Nationwide Children's Hospital

John Evans, MD
Memorial Hospital of Union County

Gary Gillen, MD
Berger Health System

Mark Hackman, MD
Mount Carmel Health System

Thomas Hubbell, MD
Grady Memorial Hospital

Hagop Mekhjian, MD
The Ohio State University Medical Center

Jerome Roche Jr., MD
Fairfield Medical Center

John Stevenson, MD
Fairfield Medical Center

Richard Streck, MD
Mount Carmel Health System

Andy Thomas, MD
The Ohio State University Medical Center

Bruce Vanderhoff, MD
OhioHealth

Thank you to the members of the Central Ohio Collaborative Steering Committee for their dedication and ongoing support:

Lori Bryant, RN
Grady Memorial Hospital

Craig Cairns, MD
Licking Memorial Hospital

Michelle Corlis
Riverside Methodist Hospital

Amy Creighton
Grant Medical Center

Pamela Dean, RN
Dublin Methodist Hospital

Lajuana Dotson
Doctors Hospital

Katie Haldeman
Riverside Methodist Hospital

Helen Harding, RN
Grant Medical Center

Mary Beth Hatfield
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Susanne Hess
Berger Health System

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Beth Johnson
Memorial Hospital of Union County

Lisa King
The Ohio State University Hospital East

Lisa Kulp, RN
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Darlene Mahaffey, RN
Fairfield Medical Center

Debbie Newman
Licking Memorial Hospital

Gayle O'Brien, RN
Mount Carmel Health System

James Parker, MD
Fairfield Medical Center

Anamarie Rayburn
Nationwide Children's Hospital

Jenefer Riddle
Grady Memorial Hospital

Rebecca Scarbrough
Doctors Hospital

Carol Solie, MD
Marion General Hospital

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Berger Health System

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Ohio State University Medical Center

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